Faculty of Science

Skill Development Program in A Basic course in Diet Nutrition

COURSE DETAILS	NAME COURSE	DURATION	TEACHING HOURS	EXAM		STUDY LEVEL	COURSE CONTENTS
				T	P		
Short term Certificate Course	A Basic course in Diet Nutrition	30 Day's	30 hrs 30T	1	0	Starter / Basic Level	Introduction to Basic concepts

COURSE OBJECTIVE:

The course will help the students to understand the natural requirement and the nutritive value of the various foods consumed. The nutrients in food will be explained systematically in terms of functions, sources and requirement.
The students will be able to:

1. Apply basic nutrition knowledge in making foods choices and obtaining an adequate diet.
2. Calculate energy requirements and the Recommended Dietary Allowances.
3. Understand the functions and role of macronutrients, their requirements and the effect of deficiency and excess
4. Analyze the role of various minerals and vitamins important in maintaining health.
5. Appreciate the importance of water and electrolytes in the human body.
6. Gain competence in connecting the role of various nutrients in maintaining health and learn to enhance traditional recipes

Syllabus Content:

Unit - 1

Food, Nutrition and Energy

1. Food and Nutrition

1.1 History of Nutrition Science

1.2 Definition and Meaning of Food, Nutrition, Nutrients.

2. Energy requirements:

2.1 Functions of Energy
2.2 Daily Energy Requirement RDA ICMR
2.3 Sources of Energy
2.4 Effects of Deficiency of Energy
2.5 Effects of excess of Energy
2.6 Basal Metabolic Rate (BMR)
2.7 Factors affecting energy requirements (BMR)
2.8 Diet induced thermo genesis (SDA)

Unit - 2

Nutrients
1. Introduction of Nutrients
1.1 Meaning and Definition
1.2 Classification of Nutrients-Macronutrients (Organic) and Micronutrients- Vitamins - (Organic)&Minerals (inorganic)
Macro Nutrients (Organic)
2. Proteins
2.1 Composition and Structure Education
2.2 Classification
2.4 Functions
2.5 Sources
2.6 RDA
2.7 Digestion and absorption
2.8 Deficiency and excess intakes
3. Carbohydrate
3.2 Composition and Structure
3.3 Classification
3.4 Functions
3.5Sources
3.6 RDA
3.7 Digestion and absorption
3.8 Deficiency and excess intakes
4. Fat
4.2 Composition and Structure
4.3 Classification
4.4 Functions
4.5 Sources
4.6 RDA
4.7Digestion and absorption
4.8 Deficiency and excess intake

Unit - 3

Micronutrients

1.Fat soluble Vitamins:
Function, RDA, sources, deficiency and excess.

1.1 Vitamin A-
1.2 Vitamin D
1.3 Vitamin E-
1.4 Vitamin K-

2. Water soluble vitamins:

Functions, RDA, food sources, deficiencies and excess

2.1 Thiamine
2.3 Niacin
2.4 B12
2.5 Folic acid
2.6 Biotin
2.7 Vitamin C

Unit - 4

Minerals

1. Macro minerals: Function, absorption, RDA, sources, effect of deficiency and

1.1 Calcium
1.2 Phosphorus
1.3 Magnesium

2. Micro Minerals: Functions, absorption, RDA, sources, effect of deficiency and excess

2.1 Iron
2.2 Zinc
2.3Fluorine
2.4 Iodine

Unit - 5

Water and Electrolytes.

1.Water:

1.1 Functions of water
1.2 Daily requirement
1.3 Water balance

2.Electrolyte and acid base balance:

Function,RDA, sources, Deficiency

2.1 Sodium
2.2 Chloride
2.3 Potassium